Leading by example, saving energy and taxpayer dollars in federal facilities

# **Super Energy Savings Performance Contracts**

Streamlined Super Energy Savings Performance Contracts (Super ESPCs) offered by the U.S. Department of Energy make it easier for agencies to finance energy efficiency improvements in Federal buildings

If you're doing all you can to meet your agency's energy efficiency, water conservation, and renewable energy goals — but are frustrated by a lack of funds — Super Energy Savings Performance Contracts (Super ESPCs) could be the answer.

**ESPCs Reallocate the Federal Customer's Payments** for Energy and Energy-Related Operations & Maintenance Expenses (E + O&M) **Before During After ESPC Contract ESPC Contract ESPC Contract** 33431201rr Gov't. Savings E+0&M Agency's Cash Flow (\$) ESCO Services Gov't. Cost Savings **Financing** Savings **Debt Service** 

> With Super ESPCs, energy and facility managers can improve their buildings and install new equipment with no up-front costs. Each Super ESPC project is designed to meet the specific needs of a facility and can include a wide range of energy and cost-saving improvements, from energy-efficient lighting to heating and cooling systems. These contracts also allow agencies to obtain financing for newer technologies, such as geothermal heat pumps, photovoltaics, and biomass energy systems.

## **Energy and Cost Savings Pay for Improvements**

Through an ESPC, an energy service company (ESCO) arranges financing to develop and install energy efficiency, water conservation, and renewable energy projects. As part of the project, the ESCO conducts a comprehensive energy audit and identifies improvements that will save energy and related operation and maintenance (O&M) costs at the facility.

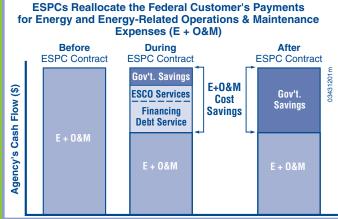
The ESCO guarantees that the energy improvements will result in a specified level of annual cost savings to the Federal agency customer. The cost savings are also guaranteed to be sufficient to allow the agency to pay the ESCO for its work over the term of the contract. After the contract ends, all additional cost savings accrue to the agency. Contract terms up to 25 years are allowed.

#### **Super ESPCs Streamline Energy Project Procurements**

Awarding a stand-alone ESPC can be very complex and time-consuming. Recognizing this, the U.S.

### **Benefits of Super ESPCs**

- Building efficiency improvements and new equipment without up-front costs
- A financing alternative to Congressional appropriations
- A flexible, streamlined procurement process for projects, resulting in faster energy savings
- Guaranteed energy and related O&M cost savings
- Lower operation and maintenance (O&M) costs
- Built-in incentives for ESCOs to provide highquality equipment, timely services, and thorough project commissioning
- Access to private-sector expertise in energy efficiency, water conservation, and renewable
- Infrastructure improvements to enhance mission
- Healthier, safer, more productive working conditions
- · Progress in meeting Federal energy, water, and emissions-reduction goals
- Greater ability to plan and budget energy and O&M accounts
- Less vulnerability to volatile energy prices, weather, and equipment failure





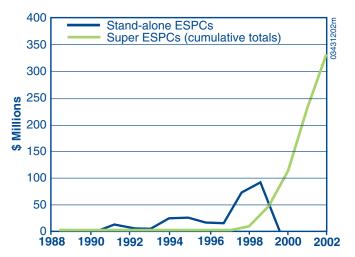
**U.S. Department of Energy** 

**Energy Eff c ency** and Renewab e Energy

Bringing you a prosperous future where energy is clean,

# Federal Energy Management Program

# Overview



Private-sector investment in energy efficiency and building improvements through Super ESPCs is growing rapidly.

Department of Energy's Federal Energy Management Program (FEMP) created streamlined Super ESPCs. These "umbrella" contracts allow agencies to undertake multiple energy projects under the same contract.

Using a Super ESPC, an agency can bypass cumbersome procurement procedures and partner directly with an ESCO to develop an energy project. FEMP has already completed the Federal Acquisition Regulations (FAR) procurement process, in compliance with all necessary requirements, and awarded contracts to selected ESCOs.

In much less time than it takes to develop a stand-alone ESPC, Federal customers can implement a Super ESPC delivery order project and begin to realize energy and cost savings. As a result, Super ESPCs are being used more frequently by Federal agencies, and they have largely supplanted stand-alone ESPCs.

# **FEMP Offers Two Kinds of Super ESPCs**

FEMP offers both Regional and Technology-Specific Super ESPCs. FEMP's Regional Super ESPCs allow agencies in a particular U.S.

Geothermal heat pumps have been installed at the Wichita Mountains National Wildlife Refuge Visitors Center, a Federal Energy Saver Showcase in Oklahoma.



region to place delivery orders with preselected ESCOs. The entire United States, the District of Columbia, and all U.S. territories are covered by the six Regional Super ESPCs. Technology-Specific Super ESPCs allow any Federal facility in the U.S. or abroad to access financing for several advanced energy technologies.

**Regional Super ESPCs.** Regional Super ESPCs are intended for Federal projects using a wide variety of proven energy efficiency and conservation measures. Selected ESCOs under the Regional Super ESPCs have demonstrated their capabilities in the following categories, among others:

- Boiler plant improvements
- Chiller plant improvements
- Building automation systems/energy management control systems (EMCS)
- Heating, ventilation, and air-conditioning (HVAC) equipment
- Lighting improvements
- Building envelope modifications (e.g., low-e windows)
- Chilled water, hot water, and steam distribution systems
- · Electric motors and drives
- Refrigeration
- · Distributed power generation systems



- Energy/utility distribution systems
- Water/sewer conservation systems
- Electric power peak shaving; load shifting
- Energy cost reductions through rate adjustments
- Energy-related process improvements.

#### Technology-Specific Super ESPCs.

FEMP offers Technology-Specific Super ESPCs to encourage the use of emerging renewable energy systems to help Federal agencies benefit from these promising technologies.

Technology-Specific Super ESPCs—which



The San Francisco Veterans Administration Medical Center is saving more than \$500,000 and 2.7 million kilowatt-hours of electricity every year through energy system retrofits financed through DOE FEMP's Super ESPCs.

apply to Federal projects all over the world—currently focus on three energy systems:

- Biomass-based fuels and alternative methane fuels (BAMF)
- Geothermal heat pumps (GHP)
- Photovoltaics (PV).

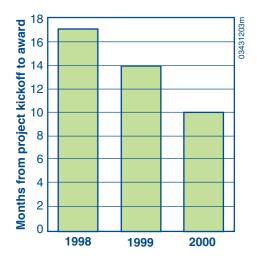
For these ESPC projects, the featured technology must be the center of the project. However, bundling other energy- and water-conservation measures into the project is allowed and even encouraged.

For a comprehensive list of delivery orders placed under Regional and Technology-Specific Super ESPCs, see FEMP's Web site: www.eere.energy.gov/femp/financing/espc/awards.html.

#### **FEMP Supports Federal Customers in Many Ways**

Agencies can rely on FEMP to assist them in implementing Super ESPC projects. FEMP provides services on ESPCs, and other energy management issues, with the support of numerous partners, including the DOE Golden Field Office, Lawrence Berkeley National Laboratory, National Energy Technology Laboratory, National Renewable Energy Laboratory, Oak Ridge National Laboratory, and private-sector experts.

In addition to ESPCs, agencies can turn to Utility Energy Services Contracts to finance energy improvement projects. To learn more about them, contact your DOE Regional Office, or visit FEMP's Web site: www.eere.energy.gov/femp/utility/index.html.



Super ESPCs are becoming faster and easier to use.



#### **Technology-Specific Super ESPC\* Contacts**

BAMF — Philadelphia Regional Office — Christopher Abbuehl, 215-656-6995 (Christopher.Abbuehl@ee.doe.gov)

GHP — Atlanta Regional Office — Doug Culbreth, 919-870-0051 (Carson.Culbreth@ee.doe.gov)

PV — Golden Field Office — Gibson Asuquo, 303-275-4910 (Gibson.Asuquo@ee.doe.gov)

<sup>\*</sup> These apply to all U.S. and international Federal facilities.



#### You can benefit from FEMP's pioneering

**projects.** Agencies just beginning Super ESPC projects can benefit from FEMP's experience with more than 80 projects. As the Super ESPC Program has progressed and matured, FEMP staff have applied the lessons learned from earlier projects to improve the contracting process. As a result, the average time to award Super ESPC delivery orders has decreased significantly.

#### Regional representatives help you get started.

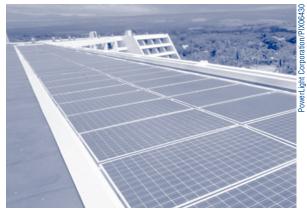
DOE's Regional Offices are the primary source of help for agencies learning about Super ESPCs and getting started on a project. FEMP's Regional Office representatives (see map) help agencies:

- Determine whether a Super ESPC project is feasible at a particular site
- Explain performance contracting to site staff and management
- Form an acquisition team
- Partner with an ESCO.

# Private Financing Is Authorized by Congress and Encouraged by Executive Order 13123

Because the government spends billions of dollars a year on energy for more than 500,000 Federal buildings, executive orders and directives require Federal agencies to use 35% less energy by 2010 in comparison to 1985 usage levels. To reach this goal, agencies will need to invest an estimated \$5 billion in Federal energy projects. But many agencies are hard-pressed to pay for minimal maintenance and repairs, let alone major facility improvements.

To address this situation, Congress and the President authorized and encouraged agencies to make use of innovative contracts to finance and implement efficiency improvements. ESPCs were authorized in the 1986 amendments to the National Energy Conservation Policy Act of 1978 and further amended by the Energy Policy Act of 1992. From 1988 through 2000, agencies used ESPCs to leverage an estimated \$795 million in private-sector financing for energy-efficiency improvements in Federal facilities—without relying on Congressional appropriations. These investments have helped the government reduce its energy use and costs by nearly 20% since 1985.



The photovoltaic technology-specific Super ESPC helps agencies reduce energy-related costs and pollution by converting sunlight directly to electricity.

FEMP facilitators are your Super

**ESPC advisors.** FEMP can assign an experienced project facilitator on request to advise and guide an agency's acquisition team through the process of developing and awarding a Super ESPC delivery order. Project facilitator technical support is provided at no cost through review of the ESCO's initial proposal. And reimbursable support is available through Interagency Agreements with the DOE Golden Field Office. Project facilitators can —

- Review price and technical proposals
- Draft requests for proposals
- Consult on all aspects of the project (e.g., measurement and verification, contractual and financial issues, and specific technologies and engineering issues).

#### **For More Information**

Contact your Regional Office Alternative Financing Representative (see the map on page 3) or —

Tatiana Strajnic, Project Financing Team Leader U.S. Department of Energy, EE-2L 1000 Independence Ave., SW Washington, D.C. 20585

Phone: 202-586-9230 Fax: 202-586-3000

E-mail: Tatiana.Strajnic@ee.doe.gov



Energy efficiency and clean, renewable energy will mean a stronger economy, cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

FEMP's services are designed to ensure that Super ESPC projects are financially smart; are technically, contractually, and legally sound; and thoroughly address an agency's priorities and needs.



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